



Economic Regulation Authority

Draft determination of Arc Infrastructure depreciated optimised replacement costs and depreciation schedule

Attachment 1: Information used by the ERA

26 March 2026

Acknowledgement of Country

At the ERA we value our cultural diversity and respect the traditional custodians of the land and waters on which we live and work.

We acknowledge their continuing connection to culture and community, their traditions and stories. We commit to listening, continuously improving our performance and building a brighter future together.

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NOTE

This attachment relates to the information that the ERA has used in making its draft decision.

This attachment forms part of the ERA's draft determination on the Arc DORC and Arc Depreciation Schedule. It should be read in conjunction with all other parts of the draft determination, which comprises of the following documents and attachments:

- Overview
- ERA's draft determinations of depreciated optimised replacement costs by route section
- ERA's draft determinations of depreciated optimised replacement costs (model)
- ERA's draft determinations of depreciation schedule (model)
- **Attachment 1: Information used by the ERA (this document)**
- Attachment 2: Total construction replacement costs
- Attachment 3: Optimisation
- Attachment 4: Capital contributions
- Attachment 5: Funding cost during construction
- Attachment 6: Depreciation
- Attachment 7: DORC summary
- Attachment 8: Depreciation schedules

Attachment 1. Summary

Arc Infrastructure statement

On 16 June 2025, the ERA published Arc's statements and called for public submissions. We published:

- Statement of Arc's determinations of DORC for each route section.¹
- Supporting material – Level of service demand forecast statement.²
- Supporting material – Applicable Railway Infrastructure DORC Final Report (prepared by GHD).
- Statement of the depreciation schedule.

Arc's statements did not address all of the route sections nominated in its 2024 costing principles and provided some additional route sections not nominated in its costing principles.

The ERA subsequently developed a model which reflected the route section listing in Arc's costing principles, by including those routes with zero asset values, and not including routes that were not nominated in the costing principles.

Consultant

To assist the review of Arc's statements, the ERA engaged RP Infrastructure (RPI) to:

- Review the asset specification quantity and unit pricing elements of Arc's statement.
- Assess Arc's asset depreciation schedule.
- Evaluate and respond to public submissions.
- Provide advice to the ERA on the assessment of DORC outcomes for each route section.

RPI requested further supporting material from Arc to assist in its assessment. Arc provided some of this information voluntarily, and the ERA requested further information under Code provisions enabling us to require Arc to provide this information.

We published the further information provided by Arc on the ERA website on 11 July 2025 and 17 July 2025.

RPI provided a report to inform the ERA's draft determination. This report is published together with this draft determination.

¹ Arc Infrastructure, *Depreciated Optimised Replacement Cost List*, 13 June 2025.

² Arc Infrastructure, *Level of service demand forecast statement*, 6 June 2025.

Submissions from stakeholders

The ERA invited public submissions, with a closing date of 14 July 2025, allowing 20 business days. Following the publication of two rounds of supporting material received from Arc, the closing date for public submissions was extended by a further 20 days to 11 August 2025.

We received seven public submissions, from:

- Association of Mining and Exploration Companies (AMEC)
- Aurizon
- Chamber of Commerce and Industry Western Australia (CCIWA)
- Co-operative Bulk Handling (CBH)
- Karara Mining Limited (KML) (two submissions)
- Pacific National.

Arc Infrastructure statement

1. On 6 June 2025 Arc submitted its statement of the depreciated optimised replacement costs of applicable railway infrastructure, required by section 47J of the Code. On the same day, Arc also submitted its statement of the depreciation schedule, as required by section 47K of the Code. The statements are required to include:
 - the determinations of depreciated optimised replacement cost for each route section³
 - supporting material demonstrating the basis of each determination⁴
 - the depreciation schedule to be applied when determining the updated regulatory asset base of applicable railway infrastructure.⁵
2. The initial statements submitted by Arc on 6 June 2025 included:
 - supporting material – level of service demand forecast statement⁶
 - supporting material – Applicable Railway Infrastructure DORC Final Report (prepared by GHD)⁷
 - the depreciation schedule to be applied when determining the updated regulatory asset base of applicable railway infrastructure.
3. The Code requires that the statements must include the railway owner's determinations of depreciated optimised replacement cost for each route section nominated in the costing principles. Arc's initial statement did not provide a statement of depreciated optimised replacement costs for all route sections. An incomplete list of depreciated optimised replacement costs was included in Arc's consultant's report.⁸ That list aggregated all 88 CBH spurs nominated in Arc's costing principles into two route sections ("CBH standard gauge sidings" and "CBH narrow gauge sidings").
4. Arc later provided a further list including determinations for all CBH sidings at the request of the ERA. On 16 June 2025, the ERA published Arc's statements for public consultation:
 - statement of Arc's determinations of depreciated optimised replacement cost by route section⁹
 - supporting material – Level of service demand forecast statement¹⁰

³ *Railways (Access) Code 2000* Section 47J(1)(b)(i)

⁴ *Railways (Access) Code 2000* Section 47J(1)(b)(ii)

⁵ *Railways (Access) Code 2000* Section 47K(1). Section 47K (1) requires that the applicable depreciation schedule is to be applied when determining the updated regulatory asset base of infrastructure under section 47N(1). Section 47N(1) says the updated regulatory asset base must be determined for each applicable route section.

⁶ Arc Infrastructure, *Level of service demand forecast statement*, 6 June 2025.

⁷ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report*, 6 June 2025.

⁸ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report*, 6 June 2025 pp v-viii.

⁹ Arc Infrastructure, *Depreciated Optimised Replacement Cost List*, 13 June 2025.

¹⁰ Arc Infrastructure, *Level of service demand forecast statement*, 6 June 2025.

- supporting material – Applicable Railway Infrastructure DORC Final Report (prepared by GHD)
 - statement of the depreciation schedule.
5. The list of determinations for route sections published on 16 June 2025 remained incomplete as it did not include determinations for all 221 route sections nominated in Arc's costing principles.
 6. Arc advised that there were nine route sections nominated in its costing principles that did not contain any assets, and seven additional route sections not nominated in its costing principles that contained customer spur assets that Arc considered to be distinct route sections for management purposes but were not identified as such in its costing principles.
 7. Prior to submitting its statements, Arc sought to amend its costing principles to remove the nine route sections with zero assets, and to include the seven new route sections. The ERA Secretariat advised Arc that, in order to allow determinations to be made in respect of the seven new route sections and to avoid delay in the ERA's consideration of its determinations, Arc should configure its statement to:
 - Retain the listing of route sections which were identified as having no assets, and assign them with zero asset values, in order to comply with the requirement to make determinations for all route sections listed in its applicable costing principles.
 - Include the seven additional route sections, while removing their relevant assets from the route section(s) identified in the costing principles that they would have otherwise formed part of. This should be done so that the list of sections in the submitted statement might reconcile, in their component parts, with the route section listing in its applicable costing principles.
 8. Arc did not take up the ERA's suggestion. Arc did not refer to the nine routes identified as having zero assets in its list of determinations, but mentioned those routes in its cover letter.¹¹ Arc's model included some asset data for the additional route sub-sections, but this data was incomplete or displayed zero asset values.
 9. For example, Arc included a proposed new route section "Albany" in its model. A proposed new route section "Merredin" was allocated zero route kilometres in Arc's model. A proposed new route section "Mollerin" is marked as clamped out in Arc's model, and was optimised out of the asset base by Arc in its statement.^{12 13}
 10. The ERA was unable to confirm – on the basis of the modelling provided by Arc – which existing routes incorporate the additional route sections proposed by Arc.¹⁴

¹¹ Thereby rendering its statements inconsistent with its applicable costing principles.

¹² Clamped out is when a physical barrier (e.g. switch locks, derailleurs, specialised clamps, etc.) is placed on rails to prevent the passage of a train.

¹³ There is one route section named "Albany" and three named "Merredin" in Arc's costing model. The costing principles does not have any route sections named "Albany" and has two named "Merredin".

¹⁴ There is no indication of whether the proposed 'new routes' are excised from the catch-all routes for customer spurs (Routes 8, 9, 42, 43) or whether they have been excised from an adjacent route section.

11. These data deficiencies prevented a reconciliation of Arc's preferred nominated route sections with the route section listing in the costing principles. The ERA therefore configured a model that reflects the route section listing in Arc's costing principles, by including those routes to which Arc assigned zero asset values, and not including any routes that were not identified in the costing principles.
12. The ERA understands that some of the proposed additional route sections, Albany and Merredin in particular, are major CBH sidings, while Extension Hill siding and Tilley siding are also important assets on the Arc network.
13. The ERA has ensured that the track lengths associated with these spurs are incorporated into the length of the route section to which the spur is connected. As part of future regulated asset base updates, Arc may provide depreciation amounts (to remove assets from existing route sections) and establish a capital addition to populate any nominated distinct new route sections with these assets.¹⁵
14. The additional route section assets included by Arc have been allocated by the ERA to the following route sections in the costing principles:

Table 1.1: ERA's reallocation of route section assets

Route section in Arc's model	ERA route section allocation	Route section length (km)
Route 42 - Albany	Route 23 - Redmond to Albany	1.633
Route 42 - Cowcowing	Route 35 - Amery to Mukinbudin	0.515
Route 42 - Merredin	Route 1 - Merredin	3.672
Route 42 - Minnivale	Route 35 - Amery to Mukinbudin	1.098
Route 42 - Mollerin	Route 37 - Burakin to Beacon	0.959
Route 42 - Extension Hill Siding	Route 40 - Morowa to Perenjori	3.248
Route 43 - Tilley Siding	Route 40 - Tilley Junction to Tilley	1.849

¹⁵ Arc Costing Principles section 3.3. This provision was added as a required amendment by the ERA. The approved 2025 Costing Principles will be the costing principles applicable to the RAB update, if these are not further amended.

15. The tables appearing in this draft decision are formatted to list the route sections for which determinations of depreciated optimised replacement cost must be made. These route sections comprise the entire Arc railway network, and, when aggregated, correspond to the route listing shown in Schedule 1 to the Code. These sections are listed in Appendix 1 of the 2024 costing principles. The ERA's assessment of Arc's depreciated optimised replacement cost determinations proceeds on the basis of this list.
16. It is not possible to provide a direct comparison between Arc's determinations and the ERA's determinations, on a route section basis, due to the omission of some route sections by Arc.
17. Routes assigned zero asset values by Arc are shown in the ERA model. A depreciated optimised replacement cost of zero will be determined for these routes, and no depreciation, optimisation, capital contributions or construction costs will apply to those routes.

Consultant

18. To assist the review of Arc's statements, the ERA engaged RPI to:
 - review the asset specification quantity and unit pricing elements of Arc's statement
 - assess Arc's asset depreciation schedule
 - evaluate and respond to public submissions
 - provide advice to the ERA on the assessment of depreciated optimised replacement cost outcomes for each route section.
19. RPI provided an initial assessment of Arc's statements that indicated that the supporting information provided by Arc was not adequate for its assessment of Arc's statement and requested that the ERA access further information to assist its assessment.
20. In particular, RPI requested a copy of Arc's model supporting the determinations.
21. On 2 July 2025, the ERA sent Arc an information request in line with RPI's request. Arc provided further information on 7 July 2025 and 10 July 2025. On 25 July 2025, Arc provided the model requested by RPI, which Arc has claimed to be confidential. Arc's model has not been published by the ERA.
22. Arc declined to meet some elements of RPI's initial requests for further information. The ERA subsequently issued two requests for this information under a (*Railways Access Act 1998*) section 21 notice.
23. The ERA published the responses from Arc which were considered supporting material to its statements. The information was published on the ERA website on 11 July and 17 July 2025.
24. RPI has provided a report to inform the ERA's draft determination. This report is published together with this draft determination.

Arc Infrastructure costing model

25. On 25 July 2025 Arc provided the ERA DORC model constructed by its consultant as supporting information following a request from RPI to the ERA for supporting information. Arc provided this model on the basis that it is not suitable for publication as it contains confidential information, and that it would be provided only to the ERA and its consultants.
26. The model provided by Arc detailed a list of 1,784 track sections with a filter facility enabling results to be aggregated at the Schedule 1 route level or into 14 network groups.^{16,17} The Arc model did not provide depreciated optimised replacement costs for the 221 required route sections. The Arc report provides a list of depreciated optimised replacement costs for 127 route sections.¹⁸
27. The ERA is required to provide determinations of depreciated optimised replacement cost for each of the 221 route sections nominated in the applicable costing principles, including the 88 discreet CBH sidings nominated by Arc as route sections in its costing principles.
28. Arc provided construction replacement costs by network groups in its report, and its model provides data at the disaggregated track section level. Along with this draft determination, the ERA has published the ERA DORC model which shows the transformation of network group outcomes to the appropriate route section outcomes.

¹⁶ Track sections are the sections of routes used by Arc for management and costing purposes.

¹⁷ Network groups are geographic aggregations of route sections. Arc aggregated its route sections into 14 network groups in its supporting material.

¹⁸ Arc Infrastructure (GHD Advisory), *Applicable Railway Infrastructure DORC final report*, 2025, p. 114.

Section 21 requests

29. Section 21 of the Act enables the ERA to require information be provided by a railway owner.
30. Section 21(1) of the Code empowers the Regulator to require the railway owner:
- (a) to send to the Regulator before a day specified in the notice a statement setting out such information as is specified in the notice;
 - (b) to give information to the Regulator by way of periodical returns at times specified in the notice; and
 - (c) to send to the Regulator, before a day specified in the notice, any book, document, or record that is in the possession or under the control of the railway owner.

A railway owner must comply with a notice under subsection (1).

31. Following the information request issued on 29 July 2025 and Arc's decision not to provide that material, the ERA issued a section 21 request on 4 September 2025.¹⁹
32. The section 21 request referred to the following information, which was required to be provided by 15 September 2025:
- GTK data for level of service demand assessment

[REDACTED]

[REDACTED]

33. Arc provided the requested GTK data and [REDACTED]. The ERA issued a further section 21 request requiring the provision of an alternative form of [REDACTED] and copies of [REDACTED] which was provided by [REDACTED]

¹⁹ The July 2025 request was a formal request from the ERA, but not a request made in accordance with section 21 of the Act.

Public consultation

34. The ERA published Arc's statements on 16 June 2025 and invited public submissions, with a closing date of 14 July 2025, allowing 20 business days.
35. On 11 July 2025, and following the publication of two rounds of supporting material received from Arc, we extended the closing date for public submissions by a further 20 days to 11 August 2025.
36. On 17 July 2025, the ERA published further supporting material provided by Arc.

Meetings with stakeholders

37. On 28 May 2025, Arc presented to the ERA Governing Body. Arc outlined its broad approach to making DORC determinations for route sections, including Arc's position that there are no contributed assets on the network.
38. On 10 April 2025, the ERA published a notice inviting pre-lodgement consultation, and inviting stakeholders to present their views on the assessment process. Two meetings were held with KML, and its consultants on 22 May 2025 and 4 August 2025. Five meetings were held with CBH, between 25 January 2025 and 10 September 2025.

Submissions

39. By the closing date of 11 August 2025, seven public submissions were received, from:
 - Association of Mining and Exploration Companies (AMEC)
 - Aurizon
 - Chamber of Commerce and Industry Western Australia (CCIWA)
 - Co-operative Bulk Handling (CBH)
 - Karara Mining Limited (KML) (two submissions)
 - Pacific National.
40. The RPI report includes a table referencing and responding to specific comments in submissions to relevant sections of its report (Table 26).
41. The KML and CBH submissions include some confidential information which has been redacted in public versions of the submissions.
42. All submissions are published concurrently with this determination.
43. Where submissions made specific comments relating to the costing of assets or to other elements of the DORC valuations, these comments are referred to in the relevant attachments to this decision.

Appendix 1 List of Tables

Table 1.1: ERA's reallocation of route section assets	5
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